

Appln. No. 10/733,738
Amendment dated September 6, 2005
Reply to Office Action dated June 6, 2005

Amendments To The Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Cancelled)
2. (Currently Amended) ~~The turbine blade according to claim 1 wherein the abrasive coating includes~~ A turbine blade with abrasive tip coating, comprising:
an elongated turbine blade having a tip at one end, said tip having an abrasive coating including a substantially 50:50 mixture of cubic boron nitride and silicon nitride.
3. (Cancelled)
4. (Currently Amended) ~~The turbine blade according to claim 3 wherein the super alloy is A~~ turbine blade with abrasive tip coating, comprising:
an elongated turbine blade having a tip at one end, said tip having an abrasive coating including a mixture of cubic boron nitride, silicon nitride and CoNiCrAlY.
5. (Currently Amended) The turbine blade according to claim ~~[[3]]~~ 4 wherein the abrasive coating includes a substantially equal parts ~~50:50 mixture~~ of cubic boron nitride and silicon nitride.
6. (Currently Amended) The turbine blade according to claim ~~[[1]]~~ 2 wherein the cubic boron nitride and the silicon nitride are electroplated to the blade tip.

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7. (Original) A turbine blade and ring segment assembly, comprising:
a turbine ring segment having an abradable coating on an inner surface thereof;
an elongated turbine blade having a tip at one end, said blade tip having an abrasive coating, said abrasive coating engaging and abrading said abradable coating of the turbine ring segment; wherein said abrasive coating of said blade tip includes a mixture of cubic boron nitride and silicon nitride
8. (Original) The assembly according to claim 7 wherein the abrasive coating includes a substantially 50:50 mixture of cubic boron nitride and silicon nitride.
9. (Original) The assembly according to claim 7 wherein the abrasive coating includes a super alloy of at least one of nickel and cobalt.
10. (Original) The assembly according to claim 9 wherein the super alloy is CoNiCrAlY.
11. (Original) The assembly according to claim 9 wherein the abrasive coating includes a substantially 50:50 mixture of cubic boron nitride and silicon nitride.
12. (Original) The assembly according to claim 7 wherein the cubic boron nitride and the silicon nitride are electroplated to the blade tip.
13. (Original) The assembly according to claim 7 wherein the abradable material of the ring segment is a thermal barrier coating.
14. (Original) The assembly according to claim 13 wherein the thermal barrier coating is porous.

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15. (Original) The assembly according to claim 14 wherein the thermal barrier coating is ceramic.
16. (Original) The assembly according to claim 15 wherein the thermal barrier coating includes yttria-stabilized zirconia (YSZ).
17. (Original) The assembly according to claim 16 wherein the thermal barrier coating includes 8 wt. % YSZ (8YSZ).
18. (New) The turbine blade according to claim 4 wherein the abrasive coating is electroplated to the blade tip.